

Form PTO-1449 (REV. 8-83) INFORMATION DISCLOSURE CITATION (Use several sheets if necessary)	U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE		Sheet 2 of 25
	ATTY. DOCKET NO. 74451.P024XD		SERIAL NO. 09/499,255
	APPLICANT Zandi et al.		
		FILING DATE 2/7/00	GROUP 2621

U.S. PATENT DOCUMENTS

[illegible]

RECEIVED
MAR 30 2004
Technology Center 2600

FOREIGN PATENT DOCUMENTS

[illegible]

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

7	Antonini, et al., "Image Coding using Wavelet Transform", IEEE Transactions on Image Processing, Vol 1, No. 2, April 1992, pp. 205-220.
8	Komatsu, et al., "Reversible Subband Coding of Images, pp. 429-436 (Japanese).
9	Langdon, Jr., Glen G., "Sunset: A Hardware-Oriented Algorithm for Lossless Compression of Gray Scale Images", SPIE Vol. 1444, Image Capture, Formatting, and Display, 1991, p. 272-282
10	Howard et al., "Fast and Efficient Lossless Image Compression", IEEE, 1993, pp. 351-360.

EXAMINER <i>phioctran</i>	DATE CONSIDERED <i>8/2/04</i>
<p>*EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.</p>	

Form PTO-1449 (REV. 8-83)	U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE	ATTY. DOCKET NO. 74451.P024XD	SERIAL NO. 09/499,255
INFORMATION DISCLOSURE CITATION		APPLICANT Zandi, et al.	
(Use several sheets if necessary)		FILING DATE 2/7/00	GROUP 2621



U.S. PATENT DOCUMENTS

EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
P	13 5241395	8-31-93	Chen			
P	14 5381145	1-10-95	Allen et al.			
P	15 4894713	1-16-90	Delogne et al.			
P	16 4922544	5-1-90	Stansfield et al.			
P	17 4999705	3-12-91	Puri			
P	18 5109451	4-28-92	Aono et al.			
P	19 5235434	8-10-93	Wober			
P	20 5335016	8-02-94	Nakagawa			

RECEIVED
MAR 30 2004
Technology Center 2600

FOREIGN PATENT DOCUMENTS

	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION	
						YES	NO
P	21 WO 9108902	3-21-91	PCT				
P	22 0611051A1	8-17-94	EPO				
P	23 2211691A	5-07-89	UK				
P	24 059303A2	4-20-94	EPO				
P	25 0510933A1	10-28-92	EPO				

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

P	26	Amir Said et al., "Image Compression Using the Spatial-Orientation Tree", IEEE, 1993 p.279-282

EXAMINER <i>p. Bruce Tran</i>	DATE CONSIDERED <i>8/2/04</i>
----------------------------------	----------------------------------

*EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to

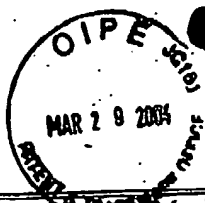


Page 5 of 23

Form PTO-1449 (Modified)				Atty Docket No.: 74451.P024XD		Serial No.: 09/499,255		
List of Patents and Publications Statement (Use several sheets if necessary)				Applicants: ZANDI ET AL.				
				Filing Date: 2/7/00				
REFERENCE DESIGNATION				U.S. PATENT DOCUMENTS				
Exam. Initial		Date	Document Number	Name	Class	Sub-Class	Filing Date	
	27	12/10/91	5,072,308	LIN ET AL.				
	28	3/17/92	5,097,331	CHEN ET AL.				
	29	3/31/92	5,101,280	MORONAGA ET AL.				
	30	7/7/92	5,128,791	LEGAL ET AL.				
	31	1/26/93	5,182,645	BREEUWER ET AL.				
	32	5/24/94	5,315,670	SHAPIRO				
	33	6/14/94	5,321,776	SHAPIRO				
	34	5/2/95	5,412,741	SHAPIRO				
	35	5/15/79	4,155,097	LUX				
	36	2/26/80	4,190,861	LUX				
	37	11/16/93	5,262,958	CHUI ET AL.				
	38	2/27/96	5,495,292	ZHANG ET AL.				
FOREIGN PATENT DOCUMENTS								
No.		Document No.	Date	Country	Name	Class	Sub-Class	Translation
OTHER ART (Including Author, Title, Date, Pertinent Pages, etc.)								
Examiner <i>p. moctran</i>				Date Considered 8/2/04				
EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.								



Form PTO-449 (Modified)				Atty Docket No.: 74451.P024XD		Serial No.: 09/499,255		
List of Patents and Publications Statement (Use several sheets if necessary)				Applicants: ZANDI ET AL.				
				Filing Date: 2/7/00				
REFERENCE DESIGNATION				U.S. PATENT DOCUMENTS				
Exam. Initial		Date	Document Number	Name	Class	Sub- Class	Filing Date	
<i>pt</i>	39	3/24/87	4,652,881	LEWIS				
	40	6/16/87	4,674,125	CARLSON ET AL.				
	41	11/15/88	4,785,348	FONSALAS ET AL.				
	42	1/17/89	4,799,179	MASSON ET AL.				
	43	3/21/89	4,815,023	ARBEITER				
	44	6/13/89	4,839,889	GOCKLER				
	45	9/19/89	4,868,868	YAZU ET AL.				
	46	4/17/90	4,918,524	ANSARI ET AL.				
	47	9/17/91	5,049,992	CITTA ET AL.				
	48	9/17/91	5,049,993	LEGALL ET AL.				
FOREIGN PATENT DOCUMENTS								
No.		Document No.	Date	Country	Name	Class	Sub-Class	Trans- lation
OTHER ART (Including Author, Title, Date, Pertinent Pages, etc.)								
Examiner <i>Shu Tran</i>				Date Considered 8/2/04				
EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.								



Page 7 of 23

Form PTO-2149 (Modified)				Atty Docket No.: 74451.P024XD		Serial No.: 09/499,255		
List of Patents and Publications Statement (Use several sheets if necessary)				Applicants: ZANDI ET AL.				
				Filing Date: 2/7/00				
REFERENCE DESIGNATION				U.S. PATENT DOCUMENTS				
Exam. Initial		Date	Document Number	Name	Class	Sub- Class	Filing Date	
	49	5/9/89	4,829,378	LEGALL				
	50	6/6/89	4,837,517	BARBER				
	51	9/5/89	4,864,398	AVIS ET AL.				
	52	1/30/90	4,897,717	HAMILTON ET AL.				
	53	2/27/90	4,904,073	LAWTON ET AL.				
	54	5/29/90	4,929,223	WALSH				
	55	6/26/90	4,936,665	WHITNEY				
	56	11/27/90	4,974,187	LAWTON				
	57	1/1/91	4,982,283	ACAMPORA				
	58	7/12/83	4,393,456	MARSHALL, JR.				
	59	2/4/86	4,569,075	NUSSBAUMER				
FOREIGN PATENT DOCUMENTS								
No.		Document No.	Date	Country	Name	Class	Sub-Class	Trans- lation
OTHER ART (Including Author, Title, Date, Pertinent Pages, etc.)								
	60	"Proceedings: ICASSP 87", 1987 International Conference on Acoustics, Speech, and Signal Processing, April 6, 7, 8, 9, 1987, Volume 4 of 4, "Application of Quadrature Mirror Filtering to the Coding of Monochrome and Color Images", H. Gharavi and A. Tabatabai, p. 2384-2387.						
	61	International Search Report for Application No: GB 9518298.6, dated 8 November 1995.						
Examiner <i>p. h. Tran</i>					Date Considered 8/2/04			
EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.								



Page 8 of 23

Form PTO 609 (Modified)				Atty Docket No.: 74451.P024XD		Serial No.: 09/499,255		
List of Patents and Publications Statement (Use several sheets if necessary)				Applicants: ZANDI ET AL.				
				Filing Date: 2/7/00				
REFERENCE DESIGNATION				U.S. PATENT DOCUMENTS				
Exam. Initial		Date	Document Number	Name	Class	Sub- Class	Filing Date	
<i>PT</i>	62	1/30/79	4,136,954	JAMIESON				
<i>PT</i>	63	9/16/80	4,223,354	NOBLE ET AL.				
	64	7/8/86	4,599,567	GOUPILLAUD ET AL.				
	65	5/5/87	4,663,660	FEDELE ET AL.				
	66	10/20/87	4,701,006	PERLMUTTER				
	67	7/26/88	4,760,563	BEYLKIN				
	68	11/15/88	4,785,349	KEITH ET AL.				
	69	2/14/89	4,805,129	DAVID				
	70	3/28/89	4,817,182	ADELSON ET AL.				
	71	4/11/89	4,821,223	DAVID				
	72	5/2/89	4,827,336	ACAMPORA ET AL.				
FOREIGN PATENT DOCUMENTS								
No.		Document No.	Date	Country	Name	Class	Sub-Class	Trans- lation
OTHER ART (Including Author, Title, Date, Pertinent Pages, etc.)								
<i>PT</i>	73	Mark J. T. Smith and Thomas P. Barnwell, III, "Exact Reconstruction Techniques for Tree-Structured Subband Coders", IEEE Transactions on Acoustics, Speech, and Signal Processing, Vol. ASSP-34, No. 3, June 1986, p. 434-441.						
<i>PT</i>	74	Marvin Vetterli, "Multi-Dimensional Sub-Band Coding: Some Theory and Algorithms", Signal Processing 6 (1984) p. 97-112.						
<i>PT</i>	75	H. Gharavi and Ali Tabatabai, "Sub-band Coding of Digital Images Using Two-Dimensional Quadrature Mirror Filtering", SPIE Vol. 707 Visual Communications and Image Processing (1986), p. 51-61.						
Examiner <i>P. Huoc Tran</i>				Date Considered <i>8/2/04</i>				
EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.								



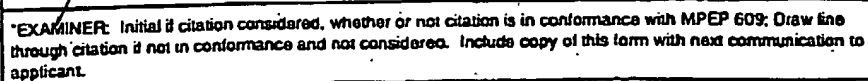
Form PTO-1449 (Modified)		Atty Docket No.: 74451.P024XD		Serial No.: 09/499,255			
List of Patents and Publications Statement (Use several sheets if necessary)		Applicants: ZANDI ET AL. Filing Date: 2/7/00					
REFERENCE DESIGNATION		U.S. PATENT DOCUMENTS					
Exam. Initial	Date	Document Number	Name	Class	Sub-Class	Filing Date	
pt	76	4/7/92	5,103,306	WEIMAN ET AL.			
	77	6/9/92	5,121,191	CASSEREAU ET AL.			
	78	6/23/92	5,124,930	NICOLAS ET AL.			
	79	7/7/92	5,128,757	CITTA ET AL.			
	80	9/15/92	5,148,498	RESNIKOFF ET AL.			
	81	10/6/92	5,152,953	ACKERMANN			
	82	10/20/92	5,156,943	WHITNEY			
	83	12/22/92	5,173,880	DUREN ET AL.			
	84	5/30/95	5,420,891	AKANSU			
	85	5/25/71	3,580,655	LEITH ET AL.			
	86	4/13/76	3,950,103	SCHMIDT-WEINMAR			
FOREIGN PATENT DOCUMENTS							
No.	Document No.	Date	Country	Name	Class	Sub-Class	Translation
87	WO 96/09718	3/28/96	PCT				
88	WO 95/19683	7/20/95	PCT				
89	EP 0701375 A2	3/13/96	EUROPE				
OTHER ART (Including Author, Title, Date, Pertinent Pages, etc.)							
90	John W. Woods and Sean D. O'Neil, "Sub-Band Coding of Images", Proceedings ICASSP 86, Tokyo, Japan, April 1986, p. 1005-1008.						
91	John W. Woods, "Subband Coding of Images", IEEE Transactions on Acoustics, Speech, and Signal Processing, Vol. ASSP-34, No. 5, October 1986, p. 1278-1288.						
92	"Proceedings: ICASSP 87", 1987 International Conference on Acoustics, Speech, and Signal Processing, April 6, 7, 8, 9, 1987, Volume 3 of 4, "Sub-band Coding of Images Using Predictive Vector Quantization", P. H. Westerink, J. Biemond and D. E. Boekee, p. 1378-1381.						
Examiner <i>Phuong Tran</i>		Date Considered 8/2/04					
EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.							



Form PTO-1492 (Modified)				Atty Docket No.: 74451 . P024XD		Serial No.: 09/499,255		
List of Patents and Publications Statement (Use several sheets if necessary)				Applicants: ZANDI ET AL				
				Filing Date: 2/7/00				
REFERENCE DESIGNATION				U.S. PATENT DOCUMENTS				
Exam. Initial		Date	Document Number	Name	Class	Sub- Class	Filing Date	
PT	93	1/15/91	4,985,927	NORWOOD ET AL.				
	94	1/22/91	4,987,480	LIPPMAN ET AL.				
	95	3/19/91	5,000,183	BONNEFOUS				
	96	3/19/91	5,001,764	WOOD ET AL.				
	97	5/7/91	5,014,134	LAWTON ET AL.				
	98	5/21/91	5,018,210	MERRYMAN ET AL.				
	99	11/26/91	5,068,911	RESNIKOFF ET AL.				
	100	12/17/91	5,073,964	RESNIKOFF				
	101	1/14/92	5,081,645	RESNIKOFF ET AL.				
	102	3/10/92	5,095,447	MANNIS ET AL.				
	103	3/31/92	5,101,446	RESNIKOFF ET AL.				
FOREIGN PATENT DOCUMENTS								
No.		Document No.	Date	Country	Name	Class	Sub-Class	Trans- lation
PT	104	WO 94/23385	10/13/94	PCT				
PT	105	0 622 741 A2	3/30/94	Europe				
PT	106	GB 2 284 121 A	5/24/95	UK				
OTHER ART (Including Author, Title, Date, Pertinent Pages, etc.)								
PT	107	"1977 IEEE International Conference on Acoustics, Speech & Signal Processing", "Application of Quadrature Mirror Filters to Split Band Voice Coding Schemes", D. Esteban and C. Galand, p. 191-195.						
PT	108	Martin Vetterli, "Filter Banks Allowing Perfect Reconstruction", Signal Processing 10 (1986), p. 219-244.						
PT	109	R. E. Crochiere, S. A. Webber, J. L. Flanagan, "Digital Coding of Speech in Sub- bands", 1976, American Telephone and Telegraph Company, The Bell System Technical Journal, Vol. 55, No. 8, October 1976, p. 1069-1085.						
Examiner phnortran				Date Considered 8/2/04				
EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.								

Sheet 11 of 23

[illegible]



Sheet 13 of 23

[illegible]

Sheet 14 of 23

[illegible]



Sheet 15 of 23

Form PTO-1449
(REV. 8-83)

U.S. DEPARTMENT OF COMMERCE
PATENT AND TRADEMARK OFFICE

ATTN SOCKET NO.

74451.P024XD

SERIAL NO.

09/499,255

APPLICANT

Zandi, et al.

FLING DATE

2/7/00

GROUP

2621

INFORMATION DISCLOSURE CITATION

(Use several sheets if necessary)

U.S. PATENT DOCUMENTS

[illegible]

RECEIVED

~~MAR 30 2004~~

Technology Center 2600

FOREIGN PATENT DOCUMENTS

DOCUMENT NUMBER										DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION	
														YES	NO
120	9	4	1	7	4	9	2	8/4/94	PCT		GO6K	9/36			
121	9	3	1	0	6	3	4	5/27/93	PCT		HO4N	7/13			

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

122	Shapiro, "Embedded Image Coding Using Zerotrees of Wavelet Coefficients", IEEE Transactions on Signal Processing, 12/93, No. 12, pp. 3445-3462.
123	Villaseñor, et al., "Filter Evaluation and Selection in Wavelet Image Compression", 1994, pp.351-360.
124	Padmanabhan, et al. "Feedback-Based Orthogonal Digital Filters", IEEE Transactions on Circuits and Systems, 8/93, No. 8, pp.512-525.

EXAMINER

DATE CONSIDERED

8/2/04

*EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.



Sheet 16 of 23

Form PTO-1449
(REV. 8-83)U.S. DEPARTMENT OF COMMERCE
PATENT AND TRADEMARK OFFICE

ATTY. DOCKET NO.

74451.P024XD

SERIAL NO.

09/499,255

INFORMATION DISCLOSURE CITATION

(Use several sheets if necessary)

APPLICANT

Zandi, et al.

FILING DATE

2/7/00

GROUP

2621

U.S. PATENT DOCUMENTS

EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE (IF APPROPRIATE)
✓	125 5347479	9/13/94	Miyazaki			
	126 5412741	5/2/95	Shapiro			
	127 5453945	9/26/95	Tucker, et al.			
	128 5497435	3/5/96	Berger			
	129 5534925	7/9/96	Zhong			
	130 5537493	7/16/96	Wildinson			
	131 5546477	8/13/96	Knowles, et al.			
	132 5563690	10/8/96	Shapiro			
	133 5602589	2/11/97	Vishwanath, et al.			

RECEIVED

MAR 30 2004

Technology Center 2600

FOREIGN PATENT DOCUMENTS

DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION YES NO

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

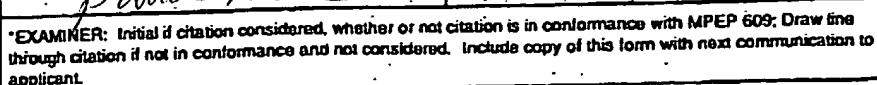
EXAMINER

phuong Tran

DATE CONSIDERED

8/2/04

*EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.



*EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.



Notice of References Cited

Application No.
09/499,255

Applicant(s)
Zandi et al.

Examiner
Phuoc Tran

Group Art Unit
2621

Page 19 of 23

U.S. PATENT DOCUMENTS

DOCUMENT NO.	DATE	NAME	CLASS	SUBCLASS
141 5,867,802	2/99	Zandi et al.	382	248
B.				
C.				
D.				
E.				
F.				
G.				
H.				
I.				
J.				
K.				
L.				
M.				

RECEIVED

MAR 3 0 2004

Technology Center 2600

FOREIGN PATENT DOCUMENTS

DOCUMENT NO.	DATE	COUNTRY	NAME	CLASS	SUBCLASS
142 EP-0662741 A2	11/94	EP	Knowles		
O.					
P.					
Q.					
R.					
S.					
T.					

NON-PATENT DOCUMENTS

DOCUMENT (Including Author, Title, Source, and Pertinent Pages)	DATE
U.	
V.	
W.	
X.	



FORM PTO-892		DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE		SERIAL NO. 09//499,255	GROUP ART UNIT 2612	ATTACHMENT TO PAPER NO.
NOTICE OF REFERENCES CITED				APPLICANT(S) Zandi et al.		
U.S. PATENT DOCUMENTS						
*		DOCUMENT NO.	DATE	NAME	CLASS	FILING DATE
	A	4,858,017	8/1989	Torbey	358	426
	B	5,384,869	1/1995	Wilkinson et al.	382	240 10/1992
	C	5,412,741	5/1995	Shapiro	382	232 1/1993
	D	5,481,308	1/1996	Hartung et al.	348	398 2/1992
	E	5,495,292	2/1996	Zhang et al.	348	407 3/1993
	F	5,541,594	6/1996	Huang et al.	348	414 3/1994
	G					
	H					
	I					
	J					
	K					
FOREIGN PATENT DOCUMENTS						
*		DOCUMENT NO.	DATE	COUNTRY	NAME	CLASS SUB-CLASS
	L					
	M					
	N					
	O					
	P					
	Q					
OTHER REFERENCES (Including Author, Title, Date, Pertinent Pages, Etc.)						
	R	Langdon, Jr., Sunset: a hardware oriented algorithm for lossless compression of gray scale images, 1991, pgs. 272-282.				
	S	Shapiro, Embedded Image Coding Using Zerotrees of Wavelet Coefficients, 12/1993, pgs. 3445-3462.				
	T	Reusens et al., New Results in subband/wavelet image coding, 5/1993, pgs. 381-385.				
	U					
EXAMINER Phyllis Trow Timothy M. Johnson		DATE 8/2/04 August 1, 1998		Form 892ccs2106b		
* A copy of this reference is not being furnished with this office action. (See Manual of Patent Examining Procedure, section 707.05(a).)						



FORM PTO-892

U.S. DEPARTMENT OF COMMERCE
PATENT AND TRADEMARK OFFICE

SERIAL NO.

09/499,255

GROUP ART
UNIT
2612ATTACHMENT
TO PAPER NO.

NOTICE OF REFERENCES CITED

APPLICANT(S)

Zandi et al.

U.S. PATENT DOCUMENTS

	DOCUMENT NO.	DATE	NAME	CLASS	SUB-CLASS	FILING DATE
A	5,495,292	2/1996	Zhang et al.	348	407.1	9/1993
B						
C						
D						
E						
F						
G						
H						
I						
J						
K						

RECEIVED

MAR 30 2004

Technology Center 2600

FOREIGN PATENT DOCUMENTS

	DOCUMENT NO.	DATE	COUNTRY	NAME	CLASS	SUB-CLASS
L						
M						
N						
O						
P						
Q						

OTHER REFERENCES (Including Author, Title, Date, Pertinent Pages, Etc.)

R	
S	
T	
U	

EXAMINER

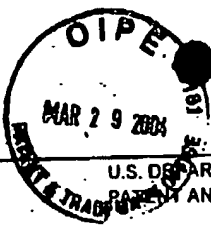
Timothy M. Johnson

DATE

8/2/04
October 15, 2000

Form 892ccs2106b

* A copy of this reference is not being furnished with this office action.
(See Manual of Patent Examining Procedure, section 707.05(a).)



FORM PTO-892		U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE		SERIAL NO. 09/499,255	GROUP ART UNIT 2612	ATTACHMENT TO PAPER NO.	
NOTICE OF REFERENCES CITED				APPLICANT(S) Zandi et al.			
U.S. PATENT DOCUMENTS							
*		DOCUMENT NO.	DATE	NAME	CLASS	SUB-CLASS	FILING DATE
	A						
	B						
	C						
	D						
	E						
	F						
	G						
	H						
	I						
	J						
	K						
FOREIGN PATENT DOCUMENTS							
*		DOCUMENT NO.	DATE	COUNTRY	NAME	CLASS	SUB-CLASS
	L						
	M						
	N						
	O						
	P						
	Q						
OTHER REFERENCES (Including Author, Title, Date, Pertinent Pages, Etc.)							
PT	R	Pollara et al., Rate-distortion efficiency of subband coding with integer coefficient filters, 7/1994, pp. 419, Information Theory, 1994, IEEE.					
	S						
	T						
	U						
EXAMINER		DATE					
Phuoc Tran Timothy M. Johnson		8/2/04 May 31, 2001					
Form 892ccs2106b							
* A copy of this reference is not being furnished with this office action. (See Manual of Patent Examining Procedure, section 707.05(a).)							

Substitute for Form 1449/PTO (Modified)

INFORMATION DISCLOSURE
STATEMENT BY APPLICANT

(use as many sheets as necessary)

Complete if Known

Application Number	09/499,255
Filing Dat	2/7/00
First Named Inventor	Ahmad Zandi et al.
Group Art Unit	2612
Examiner Name	John S. Johnson
Attorney Docket Number	74451.P024XD

Sheet 1 of

PATENT DOCUMENTS[illegible]

FOREIGN PATENT DOCUMENTS

[illegible]

Examiner
Signature

Date Considered

8/2/04

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

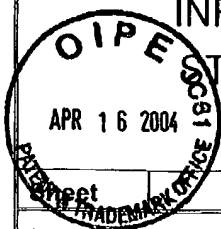
¹Unique citation designation number. ²See attached Kinds of U.S. Patent Documents. ³Enter Office that issued the document, by the two-letter code (WIPO Standard S.3). ⁴For Japanese patent documents, the indication of the year of reign of the Emperor must precede the serial number of the patent document. ⁵Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. ⁶Applicant is to place a check mark here if English language Translation is attached.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, Patent and Trademark Office, Washington, DC 20231. **DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.**

Substitute for Form 1449/PTO

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(use as many sheets as necessary)

**Complete if Known**

Application Number	09/499,255
Filing Date	02/07/2000
First Named Inventor:	Ahmad Zandi
Art Unit	2621
Examiner Name	Phuoc Tran
Attorney Docket Number	074451.P024XD

1

of

5

U.S. PATENT DOCUMENTS

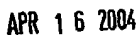
Examiner Initials*	Cite No. ¹	Document Number		Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number-Kind Code ² (If known)				
PT		US-	4,437,087	3/13/1984	Petr	
		US-	4,751,742	6/14/1988	Meeker	
		US-	4,881,075	11/14/1989	Weng	
		US-	4,899,147	2/6/1990	Schiavo et al.	
		US-	4,929,946	5/29/1990	O'Brien et al.	
		US-	4,973,961	11/27/1990	Chamzas et al.	
		US-	5,097,261	3/17/1992	Langdon, Jr. et al.	
		US-	5,223,926	6/29/1993	Stone, et al.	
		US-	5,276,525	1/4/1994	Gharavi	
		US-	5,349,348	9/20/1994	Anderson et al.	
		US-	5,379,355	1/3/1995	Allen	
		US-	5,414,780	5/9/1995	Carnahan	
		US-	5,416,604	5/16/1995	Park	
		US-	5,455,874	10/3/1995	Ormsby et al.	
		US-	5,511,151	4/23/1996	Russell et al.	
		US-	5,442,458	8/15/1995	Rabbani et al.	
		US-	5,566,089	10/15/1996	Hoogenboom	
		US-	5,638,498	6/10/1997	Tyler et al.	
		US-	5,701,367	12/23/1997	Koshi et al.	
		US-	5,717,789	2/10/1998	Anderson, et al.	
		US-	5,754,793	5/19/1998	Eom et al.	
		US-	5,808,683	9/15/1998	Tong et al.	
		US-	5,809,176	9/15/1998	Yajima	
		US-	5,850,482	12/15/1998	Meany et al.	
		US-	5,880,856	3/9/1999	Ferriere	
		US-	5,966,465	10/12/1999	Keith et al.	
		US-	6,020,975	2/1/2000	Chen et al.	
		US-	6,026,198	2/15/2000	Okada	
		US-	6,088,062	7/11/2000	Kanou et al.	
		US-	6,101,279	8/8/2000	Nguyen et al.	
		US-	6,118,902	9/12/2000	Knowles	
		US-	6,121,970	9/19/2000	Guedalia	
		US-	6,128,413	10/3/2000	Benamara	
		US-	6,201,897 B1	3/13/2001	Nixon	
		US-	6,229,929 B1	5/8/2001	Lynch et al.	
		US-	6,236,765 B1	5/22/2001	Archarya	
		US-	6,237,010 B1	5/22/2001	Hui et al.	
		US-	6,263,109 B1	7/17/2001	Ordentlich et al.	
		US-	6,263,120 B1	7/17/2001	Matsuoka	
		US-	6,327,392 B1	12/4/2001	Li	
		US-	6,330,666 B1	12/11/2001	Wise et al.	
		US-	6,339,658 B1	1/15/2002	Moccagatta et al.	
		US-	6,350,989 B1	2/26/2002	Lee et al.	
		US-	6,356,668 B1	3/12/2002	Honsinger et al.	

RECEIVED
APR 16 2004
Technology Center 2600

RECEIVED

APR 16 2004

Technology Center 2600



Substitute Form 1449/PTO

(use as many sheets as necessary)

Complete if Known

Application Number	09/499,255
Filing Date	02/07/2000
First Named Inventor:	Ahmad Zandi
Art Unit	2621
Examiner Name	Phuoc Tran
Attorney Docket Number	074451.P024XD

Sheet	2	of	5
-------	---	----	---

U.S. PATENT DOCUMENTS

RECEIVED

APR 16 2004

Technology Center 2600

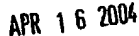
Examiner Signature	<i>Phuoc Tran</i>	Date Considered 8/2/04
-----------------------	-------------------	---------------------------

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. ¹Applicant's unique citation designation number (optional). ²See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. ³Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴For Japanese patent documents, the indication of the year of reign of the Emperor must precede the serial number of the patent document. ⁵Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶Applicant is to place a check mark here if English language translation is attached.

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SENT FEES OR COMPLETED FORMS TO THIS ADDRESS.

SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.



INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(use as many sheets as necessary)

Complete if Known

Application Number	09/499,255
--------------------	------------

Filing Date	02/07/2000
-------------	------------

First Named Inventor:	Ahmad Zandi
-----------------------	-------------

Art Unit	2621
----------	------

Examiner Name	Phuoc Tran
---------------	------------

Attorney Docket Number	074451.P024XD
------------------------	---------------

Sheet

3

of

9

FOREIGN PATENT DOCUMENTS

RECEIVED

~~APR 16 2004~~

Technology Center 2600

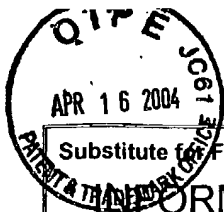
Examiner
Signature

Date Considered

8/2/04

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SENT FEES OR COMPLETED FORMS TO THIS ADDRESS.

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.



Substitute for Form 1449/PTO

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(use as many sheets as necessary)

Complete if Known

Application Number	09/499,255	RECEIVED APR 16 2004 Technology Center 2600
Filing Date	02/07/2000	
First Named Inventor:	Ahmad Zandi	
Art Unit	2621	
Examiner Name	Phuoc Tran	
Attorney Docket Number	074451.P024XD	

Sheet 4 of 5

NON PATENT LITERATURE DOCUMENTS

Examiner Initials*	Cite No ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published	T ²
pt		BLUMBERG, et al., "Visual Realism and Interactivity for the Internet", IEEE, 1997, pp. 269-273.	
		BOLIEK, et al., "Decoding compression with reversible embedded wavelets (CREW) codestreams", Journal of Electronic Imaging, July 1998, vol. 7 (3), pp. 402-409.	
		BOLIEK, et al., "JPEG 2000 for Efficient Imaging in a Client/Server Environment", Proceeding of the PIE, SPIE, Bellingham, VA, US, Vol. 4472, July 31, 2001, pp. 212-223, XP008010308.	
		BOLIEK, et al., "JPEG 2000 Next Generation Image Compression System", IEEE 0-7803-6297, 45-48	
		CALDERBANK, et al., "Wavelet Transforms That Map Integers to Integers", August 1996.	
		CAREY, et al: "Regularity-Preserving Image Interpolation", IEEE Transactions on Image Processing, Vol. 8., No. 9, September 1999, pgs. 1293-1297, XP002246254.	
		CARRATO, et al: "A Simple Edge-Sensitive Image Interpolation Filter", Proceedings of the International Conference on Image Processing (ICIP) Lausanne, Sept. 16-19, 1996, New York, IEEE, US, vol. 1, pgs. 711-714, XP010202493.	
		CHRYSAFIS, et al., "An Algorithm for Low Memory Wavelet Image Compression", IEEE 0-7803-5467-2/99, pg. 354-358.	
		CHRYSAFIS, et al., "Line Based Reduced Memory, Wavelet Image Compression," Data Compression Conference, 1998, DCC '98, Proceedings Snowbird, UT, March 1998, pgs. 398-407.	
		CHUI, et al., "Wavelets on a Bounded Interval", Numerical Methods of Approximation Theory, Vol. 9, 1992, pg. 53-75.	
		DESHPANDE, et al., "HTTP Streaming of JPEG2000 Images", IEEE, 2001, pp.15-19.	
		German Search Report, Dated March 21, 1997, 3 pages.	
		GORDON, BENJAMIN M., et al., "A 1.2 mW Video-Rate 2-D Color Subband Decoder," IEEE Journal of Solid-State Circuits, IEEE Inc. New York, Vol. 30, No. 12, Dec. 1, 1995, pgs. 1510-1516.	
		HAUF, et al., "The FlashPix™ Image File Format", The Fourth Color Imaging Conference: Color Science, Systems and Application, 1996, pp. 234-238.	
		Information Technology - JPEG 2000 Image Coding System - Part 1: Core Coding System, ISO/IEC 15444-1, 12/15/2000, pg. 5, 14, 22.	
		JPEG 2000 Part 1 Final Committee Draft Version 1.0, Image Compression Standard described in ISO/IEC 1/SC 29/WG 1 N1646, 16 March 2000.	
		MARCELLIN, et al., "An Overview of JPEG-2000", Proceedings. DCC 2000 Snowbird, UT, USA, March 28-30, 2000, pp. 523-541, XP010377392.	
		MENG, TERESA H., "A Wireless Portable Video-on-Demand System," VLSI Design, 1998, Proceedings Eleventh International Conference on Chennai, India 407, Jan. 1998, California, pgs. 4-9.	
		REEVES, et al: "Multiscale-Based Image Enhancement", Electrical and Computer Engineering, 1997. Engineering Innovation: Voyage of Discovery. IEEE 1997 Canadian Conference on St. Johns, NFLD., Canada May 25-28, 1997, New York, NY. (pgs. 500-503), XP010235053	
		STOFFEL, et al: "A Survey Of Electronic Techniques For Pictorial Image Reproduction," IEEE Transactions On Communications, vol. COM-29, no. 12, December 1981, pp. 1898-1925, XP000560531 IEEE, New York (US).	



**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**

(use as many sheets as necessary)

Complete if Known

Application Number	09/499,255
Filing Date	02/07/2000
First Named Inventor:	Ahmad Zandi
Art Unit	2621
Examiner Name	Phuoc Tran
Attorney Docket Number	074451.P024XD

Sheet	5	of	5
-------	---	----	---

NON PATENT LITERATURE DOCUMENTS

[illegible]

RECEIVED

APR 16 2004

Technology Center 2600

Examiner
Signature

Phos Tran

Date	
Considered	

8/2/04

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. ¹Applicant's unique citation designation number (optional). ²See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. ³Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴For Japanese patent documents, the indication of the year of reign of the Emperor must precede the serial number of the patent document. ⁵Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶Applicant is to place a check mark here if English language translation is attached.

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS.

SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.

Substitute for Form 1449/PTO		Complete if Known	
INFORMATION DISCLOSURE STATEMENT BY APPLICANT (use as many sheets as necessary)		Application Number	09/499,255
		Filing Date	02/07/2000
		First Named Inventor:	Ahmad Zandi
		Art Unit	2621
		Examiner Name	Tran, Phuoc
		Attorney Docket Number	74451.P024XD

U.S. PATENT DOCUMENTS						
Examiner Initials*	Cite No. ¹	Document Number		Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number-Kind Code ² (if known)				
PT		us-	2001/0003544 A1	06-14-2001	Kajiwara et al.	
		us-	5,303,200	04-12-1994	Elrod et al.	
		us-	5,600,373	02-04-1997	Chui et al.	
		us-	5,999,634	12-07-1999	Abbott et al.	
		us-	6,005,901	12-21-1999	Linz	
		us-	6,031,940	02-29-2000	Chui et al.	
		us-	6,088,395	07-11-2000	Wang et al.	
		us-	6,266,450 B1	07-24-2001	Yip et al.	
		us-	6,275,531 B1	08-14-2001	Li	
		us-	6,332,043 B1	12-18-2001	Ogata	
		us-	6,442,302 B2	08-27-2002	Klassen	
		us-	6,486,981 B1	11-26-2002	Shimura et al.	
		us-	6,492,916 B1	12-10-2002	Schwartz et al.	
		us-	6,549,673 B1	04-15-2003	Ammicht et al.	
		us-	6,606,416 B1	08-12-2003	Yip et al.	
		us-	6,658,159 B1	12-02-2003	Taubman	

FOREIGN PATENT DOCUMENTS							
Examiner Initials*	Cite No. ¹	Foreign Patent Document		Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T ⁶
		Country Code ³	Number ⁴ Kind Code ⁵ (if known)				


Examiner Signature		Date Considered	8/2/04
-----------------------	---	-----------------	--------

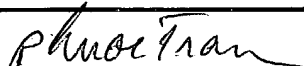
*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. ¹Applicant's unique citation designation number (optional). ²See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. ³Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴For Japanese patent documents, the indication of the year of reign of the Emperor must precede the serial number of the patent document. ⁵Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶Applicant is to place a check mark here if English language translation is attached.

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SENT FEES OR COMPLETED FORMS TO THIS ADDRESS.

SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.

Substitute for Form 1449/PTO <div style="text-align: center;"> INFORMATION DISCLOSURE STATEMENT BY APPLICANT <small>(Use as many sheets as necessary)</small> </div> <div style="text-align: center;">  </div>		<div style="text-align: right; font-weight: bold;">Complete if Known</div> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%;">Application Number</td> <td>09/499,255</td> </tr> <tr> <td>Filing Date</td> <td>02/07/2000</td> </tr> <tr> <td>First Named Inventor:</td> <td>Ahmad Zandi</td> </tr> <tr> <td>Art Unit</td> <td>2621</td> </tr> <tr> <td>Examiner Name</td> <td>Tran, Phuoc</td> </tr> <tr> <td>Attorney Docket Number</td> <td>74451.P024XD</td> </tr> </table>		Application Number	09/499,255	Filing Date	02/07/2000	First Named Inventor:	Ahmad Zandi	Art Unit	2621	Examiner Name	Tran, Phuoc	Attorney Docket Number	74451.P024XD
Application Number	09/499,255														
Filing Date	02/07/2000														
First Named Inventor:	Ahmad Zandi														
Art Unit	2621														
Examiner Name	Tran, Phuoc														
Attorney Docket Number	74451.P024XD														
Sheet 4 of 2															
NON PATENT LITERATURE DOCUMENTS															
Examiner Initials*	Cite No ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published	T ²												
pt		CHAE, ET AL., Blocking Artifact Reduction in JPEG-Coded Images, IEEE 0-7803-5467-2, pgs. 894-898, published 24-28 Oct. 1999, © 1999 IEEE.													
pt															
pt		International Standard, Information Technology - JPEG 2000 image coding system - Part 1: Core coding system, ISO/IEC 15444-1, First edition 2000-12-15, pgs. ii-226.													

Examiner Signature		Date Considered	8/2/04
--------------------	---	-----------------	--------

*Examiner: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹Applicant's unique citation designation number (optional). ²Applicant is to place a check mark here if English Translation is attached.
 This collection of information is required by 37 CFR 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SENT FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450.
 If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.